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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,848	12/29/2000	Eric C. Honea	IL-10507	1079

7590

07/25/2002

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EXAMINER

NGUYEN, TUAN M

ART UNIT

PAPER NUMBER

2828

DATE MAILED: 07/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/752,848

Applicant(s)

HONEA ET AL.

Examiner

Tuan M Nguyen

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 29 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.



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TECHNOLOGY CENTER 2800**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 6) ☐ Other:

DETAILED ACTION

Drawings

1. The drawing (figs 1-6) is objected for minor informaty. The boxes show in figures 1-6 are not labeled as required by 37 CFR 1.83(a). Applicant is required to submit a drawing correction for approval as require by rule 37 CFR 1.123
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: fig 1 amplifier laser beam (34) and fig 3 laser slab (53), note cols. 8-10. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

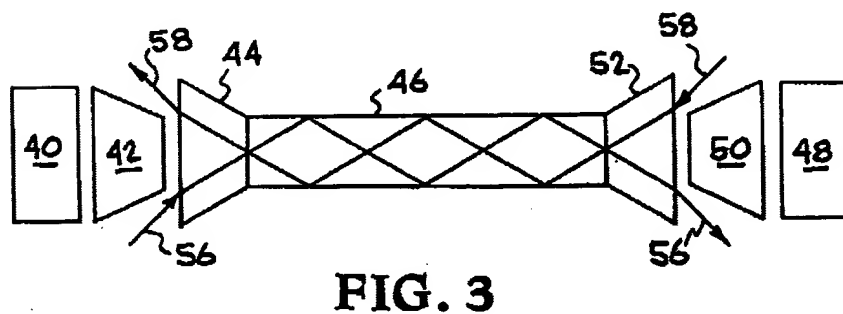
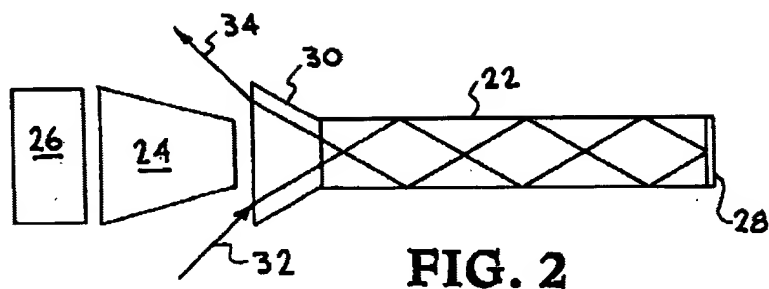
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Beach et al (US patent 6,222,872 B1).

With respect to claims 1 and 6-7, Beach et al discloses delivering pump light to a laser gain element while maintaining access to the laser beam comprises a laser slab (22), a lens duct (24), a pump light from diode array (26), a highly reflective coating (28), a

intermediate beam extractor (30) a laser beam (32) and amplifier laser beam (34), note cols. 3-4 see figs 2-6.



With respect to claim 5, Beach et al discussed about the absorptive or scattering (30 or 44), see figs. 2-6 , note cols. 3-4.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beach et al (US patent 6,222,872 B1) in view of Connors (US patent 6,115,396) further in view of Meissner et al (US patent 6,160,824).

With respect to claims 2 and 8, Beach et al discussed all above except for the absorptive or scattering outside material is a diffuse reflectance material such as powdered BaSO₄, an absorbing film such as Ge or a roughened surface to reduce the specular reflectivity. Whereas Connors discussed about the BaSO₄, which used for light reflector to maximize the efficiency of the pump source, note col. 3. However Connors fails to discuss about the Ge. Whereas Meissner discussed about Ge, it may be necessary to codop the flux of it with ions for increase the reflective index, note col. 2. For the benefit of using BaSO₄ and Ge, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Beach with the BaSO₄ and Ge as taught or suggested by Connors and Meisser.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beach et al (US patent 6,222,872 B1) in view of Connors (US patent 6,115,396).

With respect to claim 3, Beach et al discussed all above except for the absorptive or scattering outside material is powdered BaSO₄. Whereas Connors discussed about the BaSO₄, which used for light reflector to maximize the efficiency of the pump source, note col. 3. For the benefit of using BaSO₄, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Beach with the BaSO₄ as taught or suggested by Connors.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beach et al (US patent 6,222,872 B1) in view of Meissner et al (US patent 6,160,824).

With respect to claim 4, Beach et al discussed all above except for the absorptive or scattering outside material is powdered an absorbing film such as Ge. Whereas Meissner discussed about Ge, it may be necessary to codop the flux of it with ions for increase the reflective index, note col. 2. For the benefit of using Ge, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Beach with the Ge as taught or suggested by Meisser.

Citation Of The Pertinent References

8. The prior art made of record and not relied upon us considered pertinent to applicant's disclose.

The patent to Meissner et al (US patent 5,936,984) discloses laser rods with undoped flanged end-caps for end-pumped laser applications.

The patent to Baer (US patent 4,837,771) discloses high-efficiency mode – matched solid-state laser with transverse pumping and cascaded amplifier stages.

Communication Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan M Nguyen whose telephone number is (703) 306-0247. The examiner can normally be reached on 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 306-5511 for regular communications and (703) 306-5511 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3329.



Paul Ip
SPE
Art unit 2828

TMN
July 18, 2002